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PTO/SB/21 (09-04)

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Total Number of Pages in This Submission

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Application Number	09/608,612
Filing Date	June 30, 2000
First Named Inventor	Dhananjay V. Keskar
Art Unit	2175
Examiner Name	Mahmoudi, Hassan
Attorney Docket Number	P8774

ENCLOSURES (Check all that apply)

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Date	December 6, 2004	Reg. No.	40,992

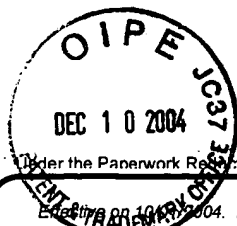
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FEE TRANSMITTAL
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) **340.00****Complete if Known**

Application Number	09/608,612
Filing Date	June 30, 2000
First Named Inventor	Dhandanjay V. Keskar
Examiner Name	Mahmoudi, Hassan
Art Unit	2175
Attorney Docket No.	P8774

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order☒ Deposit Account ☐ NoneDeposit
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Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid (\$)
Utility Filing Fee	790	395	
Design Filing Fee	350	175	
Plant Filing Fee	550	275	
Reissue Filing Fee	790	395	
Provisional Filing Fee	160	80	

Subtotal (1) \$**FEE CALCULATION** (continued)**2. EXTRA CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20	18	9
Each independent claim over 3	88	44
Multiple dependent claims	300	150
For Reissues, each claim over 20 and more than in the original patent	18	9
For Reissues, each independent claim more than in the original patent	88	44

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 20 or HP = _____ x _____ = _____			
HP = highest number of total claims paid for, if greater than 20			

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP = _____ x _____ = _____			
HP = highest number of independent claims paid for, if greater than 3			

Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)

Subtotal (2) \$**3. OTHER FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)	Fee Paid (\$)
1-month extension of time	110	55	
2-month extension of time	430	215	
3-month extension of time	980	490	
4-month extension of time	1,530	765	
5-month extension of time	2,080	1,040	
Information disclosure stmt. fee	180	180	
37 CFR 1.17(q) processing fee	50	50	
Non-English specification	130	130	
Notice of Appeal	340	170	
Filing a brief in support of appeal	340	170	340
Request for oral hearing	300	150	
Other:			

Subtotal (3) \$ 340**SUBMITTED BY**

Signature	Robert A. Diehl	Registration No. (Attorney/Agent)	40,992	Telephone	503-712-1880
Name (Print/Type)	Robert A. Diehl			Date	Dec 6, 2004

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P8774

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Keskar et al.

Application No.: 09/608,612

Customer No.: 25694

Filed: June 30, 2000

For: INTERACTIVE TECHNIQUE TO
AUTOMATICALLY FIND AND
ORGANIZE ITEMS SIMILAR TO
EXAMPLE ITEMS

Examiner: Mahmoudi, Hassan

Art Unit: 2175

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APPEAL BRIEF

This brief is submitted pursuant to 37 CFR §41.37 in furtherance of the
Notice of Appeal filed on October 4, 2004 for the above referenced patent
application.

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(i) Real party in Interest

The real party in interest of this appeal is the assignee of the subject application, Intel Corporation, having a principle place of business at 2200 Mission College Blvd., Santa Clara, CA 95052.

(ii) Related Appeals and Interferences

There are no related appeals nor interferences known to appellant, appellant's legal representative, or assignee which will directly affect or be directly affected by or having a bearing on the Board's decision in this pending appeal.

(iii) Status of the Claims

Claims 1-22: Cancelled

Claims 23-52: Rejected

(iv) Status of Amendments

No amendment was filed subsequent to Final Rejection.

(v) Summary of Claimed Subject Matter

Independent claims 23 and 37 encompass various embodiments of tools for finding items in an item space based on characteristics of a set of example items (page 3, lines 20-23). In other words, a user can search for new content by adding or removing sample content from a list. Figure 1 illustrates an

example. A user can populate a list of items with example items (related items 150; unrelated items 160; page 8, lines 14-22). When the user changes the content of the list of items, per-instance control 130 can recognize the change and send information to element 200 through query control 110 (page 11, lines 5-9). In response, element 200 can generate a query based on characteristics of the listed items (page 12, lines 3-7). The query can then be applied to an item space 510 to identify a list of suggested items 120 for the user.

(vi) Grounds of Rejection to be Reviewed on Appeal

Claims 23-27, 30-41, and 44-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,460,025 issued to Fohn et al. (hereinafter "Fohn") in view of U.S. Patent No. 6,182,060 issued to Hedgcock et al. (hereinafter "Hedgcock").

Claims 28-29 and 42-43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fohn in view of Hedgcock, further in view of U.S. Patent No. 6,463,434 issued to Zhai (hereinafter "Zhai").

(vii) Argument

Rejection under 35 U.S.C. § 103(a) over Fohn in view of Hedgcock

Claims 23-27, 30-41, and 44-52

In various embodiments of the present invention, rather than asking a user for key words or a Boolean expression, a user can search for content by

providing samples of content. In other words, a user can search for new content by adding or removing sample content from a list.

For example, claim 23 states:

A method comprising:

recognizing a change to content of a user-populated list of items from an item space;

generating a query in response to the change, said query being based on characteristics of the items indicated in the user-populated list; and

applying the query to the item space to identify a second list of items.

In contrast to claim 23, Fohn is directed to an entirely different exploration scheme for hierarchically-organized entities (Fohn; col. 1, lines 7-13). The entities can be any thing, such as computer products, machine parts, etc. (Fohn; col. 8, lines 53-56). Fohn describes a hierarchy of nodes, with a category of entities associated with each node in the hierarchy (Fohn; col. 1, lines 27-30). A user may navigate up and down branches of a hierarchy to see different levels of entity categories, or jump from one branch to another, and even one hierarchy to another, to see different types of entity categories (Fohn; col. 3, lines 21-32). This relationship between a particular node and a group of entities, as defined by a hierarchy, is what Fohn calls "structural relevance" (Fohn; col. 8, lines 25-31). Fohn describes a set of equations that can be applied to virtually any hierarchy to determine structural relevance (Fohn; col. 10, lines 1-33).

Fohn, however, does not rely purely on the structural relevance of hierarchies to categorize entities. Instead, Fohn further refines categories of entities based on the set of nodes a user has previously visited (Fohn; col. 4,

lines 7-11). This relationship between a particular node and a group of entities, as defined by the path of nodes that a user takes through one or more hierarchies, is what Fohn calls "state relevance" (Fohn; col. 9, lines 13-21). Fohn calculates state relevance by keeping track of the set of entities common to each node along the user's path, even if the user jumps from one branch to another or from one hierarchy to another (Fohn; col. 10, line 57 to col. 11, line 37; col. 14, lines 61-62). Fohn also describes a set of equations for calculating state relevance in virtually any hierarchy (Fohn; col. 10, line 57 to col. 11, line 37).

For example, if a user selects an initial node for which entities a, b, and c are structurally relevant, and then the user jumps to a second node for which entities b, c, d, and e are structurally relevant, only entities b and c are common to both nodes. So, only entities b and c have state relevance to the second node in the path. If the user jumps to a third node for which entities c, d, and f are structurally relevant, only entity c is common to all three nodes, so only entity c has state relevance to the third node in the path.

Fohn also provides guidance to a user as to which node(s) the user may want to explore next based on the previously explored nodes (Fohn; col. 4, lines 11-15; col. 11, lines 40-49). Fohn does this by determining what the state relevance would be at each node the user has not yet visited and indicating whether the nodes are "feasible" or "infeasible" based on the outcome (Fohn; col. 11, line 51 to col. 12, line 14). A node is "feasible" only if at least one entity at the node would have state relevance (Fohn; col. 11, line 66 to col. 12, line 4).

Equations for node feasibility in virtually any hierarchy are at column 11, line 51 to column 12, line 14.

Fohn was cited in Paragraph 3 of the July 2, 2004 Final Office Action for teaching the following language from claim 23:

recognizing a change to content of items (see column 16, lines 58-62);
generating a query in response to the change (see column 20, lines 33-37), the query being based on characteristics of the items indicated in the list (see column 20, lines 37-43, where "characteristics of the first set of items" is read on "operations which comprise the computations".)

Column 16, lines 58-62 of Fohn refer to the static nature of a hierarchy, which allows the structural relevance of each node to be pre-computed. Fohn is saying here that the only time structural relevance needs to be re-computed is when there is some change that necessitates a new hierarchy, such as a new entity or node. If a new hierarchy is needed, Fohn mentions that any electronic catalog system could be used to categorize entities into a hierarchy of nodes (Fohn; col. 8, lines 39-45).

Column 20, lines 33-43 of Fohn refer to relational database query commands that could be used to recognize structural and state relevance as described above. These "queries", however, are clearly generated based on formulas designed to operate on virtually any hierarchy of nodes as described above (Fohn; col. 10, lines 1-33 and 57-67; col. 11, lines 1-37). Once the queries are generated, they can be used to recognize sets of entities in virtually any hierarchy and perform various operations on the sets (Fohn; col. 8, lines 22-

24). A change in content that results in a new hierarchy may trigger use of the queries, but the queries themselves need only to be generated once.

Assuming purely for the sake of argument that Column 16, lines 58-62 of Fohn can be read to suggest "recognizing a change to content" of items, the queries mentioned at Column 20, lines 33-43 of Fohn are clearly not generated "in response" to any recognized change to content, as claimed in claim 23.

Rather, the queries mentioned in Fohn can be generated once and universally applied to a wide range of hierarchies, regardless of any changes to content.

Furthermore, the queries in Fohn are clearly not generated based on "characteristics" of any content, as claimed in claim 23. Rather, they are based on universally applicable formulas.

Hedgcock was cited in Paragraph 3 of the July 2, 2004 Final Office Action for teaching the following language from claim 23:

user populated list of items from an item space; and
applying the query to the item space to identify a second list of
items.

Hedgcock is directed to a data technique that maps "keys" to "data" (Hedgcock; col. 4, lines 31-37). Assuming purely for the sake of argument that the Office Action is correct with respect to the teachings of Hedgcock, Applicant respectfully submits that Hedgcock does not cure the deficiencies of Fohn as described above.

Therefore, Applicant respectfully submits that Fohn and Hedgcock do not suggest, disclose, or enable "recognizing a change to content of a user-populated list of items from an item space; [and] generating a query in response to the change, said query being based on characteristics of the items indicated in the user-populated list," as claimed in claim 23.

Thus, for at least the reasons discussed above, Applicant respectfully submits that claim 23 is not obvious in light of Fohn and Hedgcock.

Applicant submits that the reasoning presented above with respect to claim 23 similarly applies to claims 24-27, 30-41, and 44-52. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 24-27, 30-41, and 44-52 are likewise not obvious in light of Fohn and Hedgcock.

Rejection under 35 U.S.C. § 103(a) over Fohn in view of Hedgcock and Zhai

Claims 28-29 and 42-43

Claims 28 and 29 depend from claim 23, and claims 42 and 43 depend from claim 37. Therefore, Applicant respectfully submits that the reasoning presented above with respect to Fohn and Hedgcock similarly applies to claims 28, 29, 42, and 43.

Zhai was cited in Paragraph 4 of the July 2, 2004 Final Office Action for teaching a method for setting a profile score threshold. Assuming purely for the sake of argument that the Office Action is correct with respect to the teachings of Zhai, Applicant respectfully submits that Zhai does not cure the deficiencies of

Fohn and Hedgcock as described above. Thus, for at least the reasons discussed above, Applicant respectfully submits that claims 28, 29, 42, and 43 are not obvious in light of Fohn, Hedgcock, and Zhai.

In conclusion, Applicant respectfully submits that claims 23-52 are now in a condition for allowance, and Applicant respectfully requests allowance of such claims.

Please charge any shortages and credit any overages to our Deposit Account No. 50-0221.

Respectfully submitted,

INTEL CORPORATION

Date: Dec 6, 2004



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(viii) Claims Appendix

23. A method comprising:

recognizing a change to content of a user-populated list of items from an item space;

generating a query in response to the change, said query being based on characteristics of the items indicated in the user-populated list; and

applying the query to the item space to identify a second list of items.

24. The method of claim 23 wherein the user-populated list comprises a related-items group, and wherein the items indicated in the user-populated list share at least one characteristic with the items indicated in the second list.

25. The method of claim 23 wherein the user-populated list comprises a not-related-items group, and wherein the items indicated in the user-populated list each have at least one characteristic that is not shared with any of the items indicated in the second list.

26. The method of claim 23 wherein the user-populated list comprises two subgroups, said subgroups comprising a related-items group and a not-related-items group.

27. The method of claim 26 wherein generating the query comprises:

finding positive characteristics among items indicated in the related-items group;

assigning a positive relevance to each positive characteristic based on a weighted occurrence of a respective positive characteristic among the items indicated in the related-items group;

finding negative characteristics among items indicated in the not-related-items group; and

assigning a negative relevance to each negative characteristic based on a weighted occurrence of a respective negative characteristic among the items indicated in the not-related-items group.

28. The method of claim 27 wherein applying the query comprises:

finding target items from the item space that include at least a certain number of the positive characteristics;

assigning a relevance score to each target item based on the positive relevances and the negative relevances of a respective target item's characteristics; and

selecting items to populate the second list of items from among the target items based on the relevance scores.

29. The method of claim 28 wherein selecting items to populate the second list comprises one of:

selecting all of the target items;

selecting a certain number of target items; or

selecting only target items that have a relevance score over a certain threshold.

30. The method of claim 26 wherein recognizing the change comprises one of:

recognizing when one of the items indicated in the user-populated list has been moved from the related-items group to the not-related-items group; or

recognizing when one of the items indicated in the user-populated list has been moved from the not-related-items group to the related-items group.

31. The method of claim 23 wherein recognizing the change comprises one of:

recognizing when any item has been deleted from the user-populated list;

or

recognizing when a new item has been added to the user-populated list.

32. The method of claim 23 wherein the user-populated list and the second list

comprise a first organizational instance among a plurality of organizational

instances, and wherein each of the plurality of organizational instances is based on a different set of target characteristics.

33. The method of claim 32 wherein recognizing the change comprises:
recognizing when a new item has been added to the user-populated list
from a second organizational instance.

34. The method of claim 23 further comprising:
recognizing additional changes to the content of the user-populated list;
and
repeating the generating and applying for each of the additional changes.

35. The method of claim 23 wherein the item space comprises at least one of
documents, files, emails, tasks, notes, instant messages, contacts, or web pages
stored in memory.

36. The method of claim 23 further comprising:
storing the user-populated list;
recalling the user-populated list following a change in the item space;
regenerating the query; and
applying the query to the item space to identify an updated list of items.

37. A machine readable medium having stored thereon machine executable
instructions, the execution of which to implement a method comprising:
recognizing a change to content of a user-populated list of items from an
item space;

generating a query in response to the change, said query being based on characteristics of the items indicated in the user-populated list; and

applying the query to the item space to identify a second list of items.

38. The machine readable medium of claim 37 wherein the user-populated list comprises a related-items group, and wherein the items indicated in the user-populated list share at least one characteristic with the items indicated in the second list.

39. The machine readable medium of claim 37 wherein the user-populated list comprises a not-related-items group, and wherein items indicated in the user-populated list each have at least one characteristic that is not shared with any of the items indicated in the second list.

40. The machine readable medium of claim 37 wherein the user-populated list comprises two subgroups, said subgroups comprising a related-items group and a not-related-items group.

41. The machine readable medium of claim 40 wherein generating the query comprises:

finding positive characteristics among items indicated in the related-items group;

assigning a positive relevance to each positive characteristic based on a weighted occurrence of a respective positive characteristic among the items indicated in the related-items group;

finding negative characteristics among items indicated in the not-related-items group; and

assigning a negative relevance to each negative characteristic based on a weighted occurrence of a respective negative characteristic among the items indicated in the not-related-items group.

42. The machine readable medium of claim 41 wherein applying the query comprises:

finding target items from the item space that include at least a certain number of the positive characteristics;

assigning a relevance score to each target item based on the positive relevances and the negative relevances of a respective target item's characteristics; and

selecting items to populate the second list of items from among the target items based on the relevance scores.

43. The machine readable medium of claim 42 wherein selecting items to populate the second list comprises one of:

selecting all of the target items;

selecting a certain number of target items; or

selecting only target items that have a relevance score over a certain threshold.

44. The machine readable medium of claim 40 wherein recognizing the change comprises one of:

recognizing when one of the items indicated in the user-populated list has been moved from the related-items group to the not-related-items group; or

recognizing when one of the items indicated in the user-populated list has been moved from the not-related-items group to the related-items group.

45. The machine readable medium of claim 37 wherein recognizing the change comprises one of:

recognizing when any item has been deleted from the user-populated list;
or

recognizing when a new item has been added to the user-populated list.

46. The machine readable medium of claim 37 wherein the user-populated list and the second list comprise a first organizational instance among a plurality of organizational instances, and wherein each of the plurality of organizational instances is based on a different set of target characteristics.

47. The machine readable medium of claim 46 wherein recognizing the change comprises:

recognizing when a new item has been added to the user-populated list from a second organizational instance.

48. The machine readable medium of claim 37 further comprising:

recognizing additional changes to the content of the user-populated list;
and
repeating the generating and applying for each of the additional changes.

49. The machine readable medium of claim 37 wherein the item space comprises at least one of documents, files, emails, tasks, notes, instant messages, contacts, or web pages stored in memory.

50. The machine readable medium of claim 37 further comprising:

storing the user-populated list;
recalling the user-populated list following a change in the item space;
regenerating the query; and
applying the query to the item space to identify an updated list of items.

51. The method of claim 23 wherein the user-populated list comprises a set of identifiers, each identifier of the set of identifiers indicating a particular item in the item space.

52. The machine readable medium of claim 37 wherein the user-populated list comprises a set of identifiers, each identifier of the set of identifiers indicating a particular item in the item space.

(ix) Evidence Appendix

None submitted

(x) Related Proceedings Appendix

None known